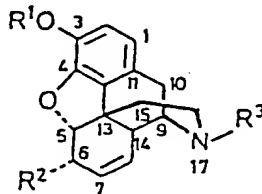


NEW CLAIMS

- 506
A2/ 1. Transdermal or transmucosal composition for administering morphine alkaloids of the following Formula I:



(I)

where R¹ is selected from the group consisting of H, C₁- to C₆-alkyl residues, preferably methyl, ethyl-, propyl, i-propyl, C(O)CH₃; R² is selected from the group consisting of the monad residues H, OH, OC(O)CH₃, whereby in this case the fourth valence of the (6)-C atom is occupied by H, or the dyad residues =O, =CH₂; R³ is selected from the group consisting of -CH₃, cyclopropyl, cyclobutyl and allyl; and where

- the bond at C7/C8 may be saturated, or a nitroxyl group may be present at N₁₇,

characterized in that it contains the morphine alkaloid as an acid addition salt of an organic acid which is selected from

- monoesters of C₃- to C₁₀-dicarboxylic acids with monohydric C₁- to C₄-alcohols, especially methanol,
- C₂- to C₁₀-sulfonic acids,
- substituted benzoic acids, selected from the group of halogen, hydroxy, alkyl, hydroxyalkyl, alkoxyalkyl

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A7

and/or alkoxy-substituted benzoic acids, as well as of the aminosubstituted benzoic acids, which may optionally be alkylated at the N atom,

- substituted or non-substituted 5-ring or 6-ring heterocycles comprising at least one N or S atom and having a carboxyl group function, especially a carboxy, carboxymethyl, carboxyethyl or the - optionally branched - carboxypropyl or carboxybutyl groups as substituents,
- saturated or unsaturated, optionally substituted, oxocarboxylic acids having 5 to 10 C atoms,
- phenyl-substituted or phenoxy-substituted saturated C₂- to C₄-carboxylic acids,
- aliphatic, aromatic or heterocyclic C₂- to C₁₂-amino acids, wherein one amino group is substituted with an - optionally substituted - C₂- to C₆-alkanoyl group or an - optionally substituted - benzoyl group.

2. Composition according to Claim 1, characterized in that the organic acid is selected from aliphatic monoamino-monocarboxylic acids, wherein the amino group is substituted with a C₂- to C₆-alkanoyl group, which may be mono- or polysubstituted with hydroxy, C₁- to C₄-alkoxy- or C₁- to C₄-hydroxyalkyl, or wherein the amino group is substituted with the benzoyl residue, which may be mono- or polysubstituted with C₁- to C₄-alkyl, C₁- to C₄-alkoxy, C₁- to C₄-hydroxyalkyl, halogen, amino or hydroxy.

3. Composition according to Claim 2, characterized in that the organic acid is selected from aliphatic C₂- to C₆-

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A 7
monoaminomonocarboxylic acids, wherein the amino group is substituted with the acetyl group or the benzoyl group.

4. Composition according to Claim 1, characterized in that the organic acid is selected from:

- hydroxy-(C₁- to C₄)-alkyl, C₁- to C₆-alkoxy-(C₁- to C₄)-alkyl-substituted or p- or m-hydroxy-substituted benzoic acids,
- monoesters of C₅- to C₁₀-dicarboxylic acids, especially suberic acid, azelaic acid and sebacic acid,
- C₄- to C₈-sulfonic acids, especially hexanesulfonic acid.

5. Composition according to Claim 1, characterized in that the acid is selected from C₁- to C₄-alkyl-substituted benzoic acids, preferably C₁- to C₄-trialkyl-substituted benzoic acids.

6. Composition according to Claim 1, characterized in that the organic acid is hexanesulfonic acid, aminobenzoic acid or trimethylbenzoic acid.

7. Composition according to Claim 1, characterized in that the 5-ring or 6-ring heterocycle is a pyridine-carboxylic acid, preferably nicotinic acid or lipoic acid.

8. Composition according to Claim 1, characterized in that the oxocarboxylic acid is a 2-, 4-, 5- or 9-oxocarboxylic acid which is optionally unsaturated.

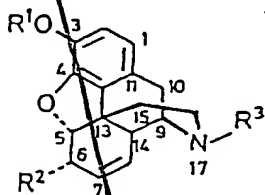
9. Composition according to Claim 8, characterized in that the oxocarboxylic acid is 5-oxopyrrolidine-2-carboxylic acid, levulic acid or oxodec-2-ene acid.

10. Composition according to Claim 3, characterized in that the organic acid is acetyltylglycin or hippuric acid.

11. Composition according to any one of the preceding Claims, characterized in that the morphine alkaloid is morphine, codeine, heroin, ethylmorphine, levorphanol or hydromorphone.

12. Composition according to Claim 1, characterized in that it comprises a solution or suspension of the acid addition salt in glycerin, ethylene glykol, dimethyl isosorbide, oleic acid and/or dimethyl sulfoxide.

13. Acid addition salts of morphine alkaloid and organic acid, said morphine alkaloid having the following Formula I:



(I)

where R^1 is selected from the group consisting of H, C_1 - to C_6 -alkyl residues, preferably methyl, ethyl-, propyl, isopropyl, $C(O)CH_3$; R^2 is selected from the group consisting of the monad residues H, OH, $OC(O)CH_3$, whereby in this case the fourth valence of the (6)-C atom is occupied by H, or the dyad residues $=O$, $=CH_2$; R^3 is selected from the group consisting of $-CH_3$, cyclopropyl, cyclobutyl and allyl; and where

- the bond at C7/C8 may be saturated, or a nitroxyl group may be present at N_{17} ,

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A9

characterized in that the organic acid is selected from

- monoesters of C₃- to C₁₆-dicarboxylic acids with monohydric C₁- to C₄-alcohols, especially methanol,
- C₂- to C₆- and C₈- to C₁₆-sulfonic acids,
- the group of halogen, p- and m-hydroxy, alkyl, hydroxyalkyl, alkoxyalkyl and/or alkoxy-substituted benzoic acids, as well as of the aminosubstituted benzoic acids, which may optionally be alkylated at the N atom,
- substituted or non-substituted 5-ring or 6-ring heterocycles comprising at least one N or S atom and having a carboxyl group function, especially a carboxy, carboxymethyl, carboxyethyl or the - optionally branched - carboxypropyl or carboxybutyl groups as substituents,
- saturated or unsaturated, optionally substituted, oxocarboxylic acids having 5 to 10 C atoms,
- phenoxy-substituted saturated C₂- to C₄-carboxylic acids,
- aliphatic, aromatic or heterocyclic C₂- to C₁₂-amino acids, wherein one amino group is substituted with an - optionally substituted - C₂- to C₆-alkanoyl group or an - optionally substituted - benzoyl group.

14. Method for the production of acid addition salts according to Claim 13, comprising the steps of providing a solution of the morphin alkaloid, reacting, in a further

step, said solution with equimolar amounts of a solution of the organic acid and isolating the resultant addition salt.

15. Use of a composition according to Claim 1 for formulating preparations for pain control or for withdrawal therapy of drug addicts.

16. Composition according to Claim 1, characterized in that said preparation is a lotion, ointment, creme, gel or spray, an iontophoretic device, a transmucosal therapeutic system or a transdermal therapeutic system (TTS), comprising a backing layer, which optionally is active substance-impermeable, and a reservoir layer.

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